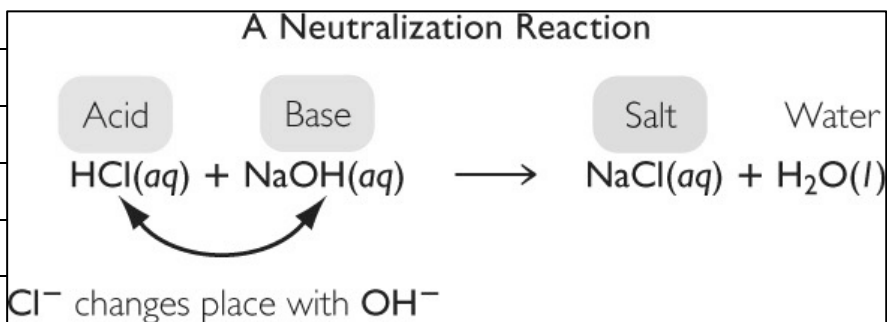


Essential Question: **What happens when acids and bases are mixed?****How can mixing acids and bases together help you to determine molarity?**

Questions:

Notes:

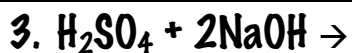
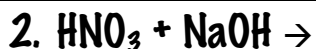
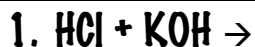
**What is a
neutralization
reaction?**

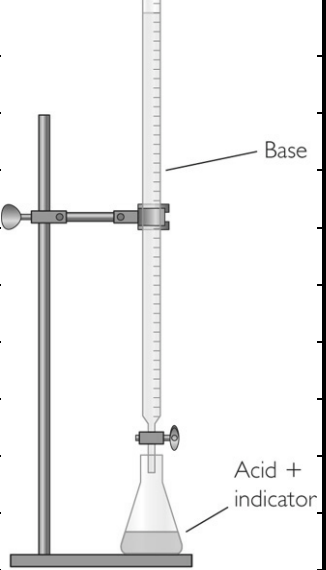
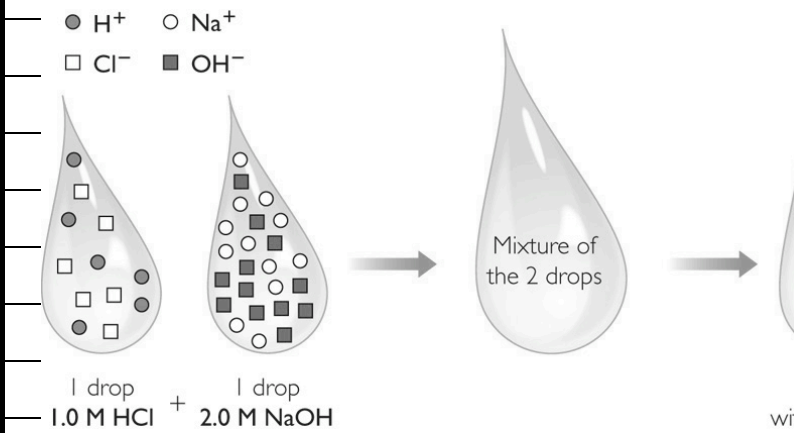


**Where do the ions
used in the salt
come from?**

Predicting Products of Neutralization Reactions

Predict the products of the following neutralization reactions:



| | | |
|----------------------|---|---|
| How can | Titration: |  |
| neutralization | | |
| reactions be used to | | |
| determine | | |
| molarity? | Equivalence Point: | |
| | | |
| | | |
| | | |
| Why is an indicator | | |
| used during a | | |
| titration? | | |
| | | |
| Why is molarity | | |
| important to | | |
| consider when | | |
| neutralizing an | | |
| acid or base? | | |
| | <ul style="list-style-type: none"> ● H⁺ ○ Na⁺ □ Cl⁻ ■ OH⁻ | |
| |  | |
| | 1 drop 1.0 M HCl + 1 drop 2.0 M NaOH | |
| | Mixture of the 2 drops | |
| | 2 drops 0.5 M NaCl with leftover dissolved NaOH | |
| | | |
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|-------------------|---|
| How is | A 100mL sample of sulfuric acid, H_2SO_4 , is titrated with 2.0M |
| stoichiometry and | NaOH. After 50 mL of NaOH are added, the indicator changes |
| molarity used to | color at pH 7. What was the starting concentration of the H_2SO_4 ? |
| calculate the | 1. Write a balanced equation |
| concentration | |
| of an unknown? | |
| | 2. Use the molarity equation to calculate the number of moles of |
| | base used |
| | |
| | |
| | |
| | |
| | |
| | |
| | 3. Determine the mole ratio between the acid and the base and |
| | then multiply that by the number of moles of the base used in |
| | the titration to determine the moles of acid |
| | |
| | |
| | |
| | 4. Use the molarity equation with the volume of acid and moles |
| | calculated |
| | |
| | |
| | |
| | |
| | |
| Summary: | |